METHOD AND APPARATUS FOR MONITORING LEFT VENTRICULAR WORK OR POWER

ABSTRACT OF THE DISCLOSURE

A body implantable system employs a lead system having at least one electrode and at least one thermal sensor at a distal end. The lead system is implanted within a patient's heart in a coronary vein of the left ventricle. The thermal sensor can be attached to a catheter that is disposed within an open lumen of the lead system. The thermal sensor senses a coronary vein temperature. The coronary vein temperature can be measured at a detector/energy delivery system and used as an activity indicator to adaptively control pacing rate. The measured coronary vein temperature can be also used with a left ventricular flow measurement to determine hemodynamic efficiency of the heart. A detected change in hemodynamic efficiency can be used by the detector/energy delivery system to modify the delivery of electrical pulses to the lead system.